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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/068,343

02/05/2002

George P. Vella-Coleiro

1052.001

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01/16/2007

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EXAMINER

KUMAR, PANKAJ

ART UNIT

PAPER NUMBER

2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/068,343

Applicant(s)

VELLA-COLEIRO, GEORGE P.

Examiner

Pankaj Kumar

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-29 is/are allowed.
- 6) ☒ Claim(s) 1,7,8,15,21,22 and 25 is/are rejected.
- 7) ☒ Claim(s) 2-6,9-14,16-20,23 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed have been fully considered but they are not persuasive.
2. Applicant argues that there is no motivation to combine Hsu with Strait since Hsu is to predistortion and Strait is to distortion and thus both being in distortion is insufficient grounds for combining. This is not persuasive since they are both in the analogous art of distortion is only a portion of the motivation to combine. The motivation to combine the references was given in the prior action as: "Hsu teaches distortion (something broad) in general while Strait teaches the beneficial use of phase difference between frequencies in the area of distortion such as phase distortion associated with modulation of data onto a carrier (Strait col. 2 lines 57-58) having different phases at different frequencies (Strait cols. 2-5)".
3. Applicant argues that Strait deals with linear distortion while Hsu deals with nonlinear distortion and thus they cannot be combined. This is not persuasive since both Strait and Hsu are implementing methods of overcoming distortion and Strait provides an advantage with at least one of its features that would help to improve Hsu.
4. Applicant argues that Strait has nothing to do with predistortion since Strait is dealing with distortion while Hsu deals with predistortion and thus they cannot be combined. This is not persuasive since both Strait and Hsu are implementing methods, at different times, of overcoming distortion and Strait provides an advantage with at least one of its features that would help to improve Hsu even at different times.
5. Applicant argues that "Like the present application, Hsu is related to a technique of predistorting" (applicant's argument page 2 paragraph 2). This is persuasive.

6. Applicant argues that "Strait does not teach the compensation of any type of distortion based on that determined phase difference" (applicant's argument page 2 paragraph 6). This is not persuasive since applicant himself admits "According to Strait, the difference in phase between two carriers is determined ... determined phase difference is then adjusted to compensate for channel phase distortion" (applicant's argument page 2 paragraph 7).

7. Applicant argues that "The compensation for the channel phase distortion is not based on Straits phase difference" since "Strait's phase difference ... is adjusted to account for channel phase distortion" (applicant's argument page 3 top). This is not persuasive since applicant himself admits "According to Strait, the difference in phase between two carriers is determined ... determined phase difference is then adjusted to compensate for channel phase distortion" (applicant's argument page 2 paragraph 7).

8. Applicant argues that Strait does not compensate for channel phase distortion based on the phase difference between two frequencies (applicant's argument page 3 second full paragraph). This is not persuasive. Strait teaches in fig. 3 element 200 to determine the phase of two adjacent carriers which inherently means that the carriers are at two adjacent frequencies. In element 202, phase difference is determined and in 204 this is adjusted in response to phase distortion.

***Response to Amendment***

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 7, 8, 15, 21, 22, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu USPN 6,794,936 in view of Strait USPN 6,438,186. See a prior action for details.

11. Claims 2-6, 9-14, 16-20, 23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 26-29 are allowed. See prior action(s) for details.

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Monday through Friday.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Pankaj Kumar  
Primary Examiner  
Art Unit 2611

PK